

**SUPER FAST  
GLASS PASSIVATED RECTIFIERS**

REVERSE VOLTAGE - **50 to 200** Volts  
FORWARD CURRENT - **8.0** Amperes

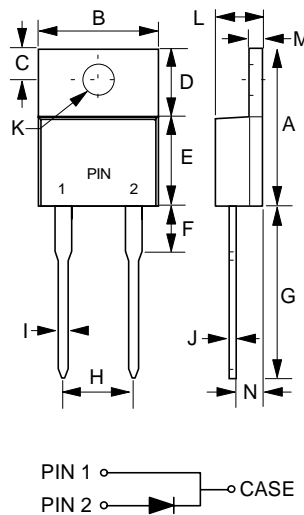
**FEATURES**

- Glass passivated chip
- Superfast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- High surge capacity
- Plastic package has UL flammability classification 94V-0

**MECHANICAL DATA**

- Case : TO-220AC molded plastic
- Polarity : As marked on the body
- Weight : 0.08 ounces, 2.24 grams
- Mounting position : Any

**TO-220AC**



TO-220AC		
DIM.	MIN.	MAX.
A	14.22	15.88
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	8.26	9.28
F	-	6.35
G	12.70	14.73
H	4.83	5.33
I	0.51	1.14
J	0.30	0.64
K	3.53 $\varnothing$	4.09 $\varnothing$
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92

All Dimensions in millimeter

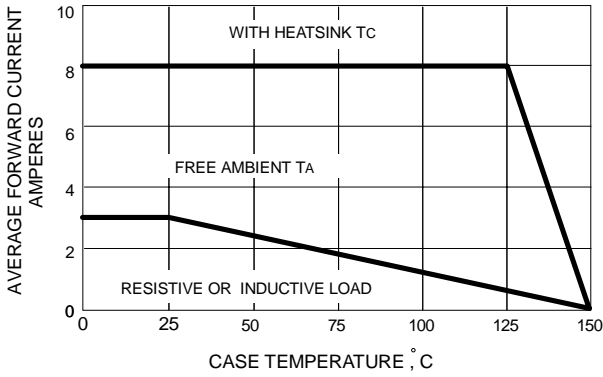
**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

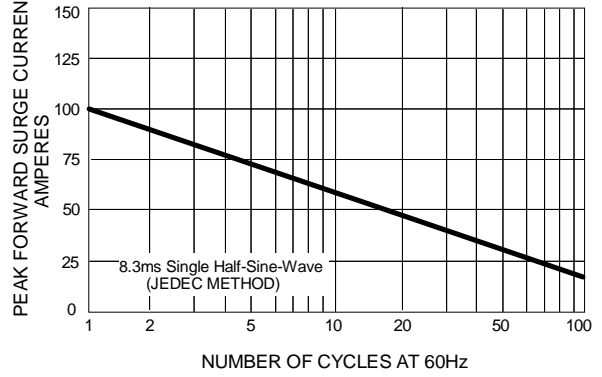
CHARACTERISTICS	SYMBOL	STPR805DB	STPR810DB	STPR815DB	STPR820DB	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	V
Maximum RMS Voltage	VRMS	35	70	105	140	V
Maximum DC Blocking Voltage	VDC	50	100	150	200	V
Maximum Average Forward Rectified Current @T <sub>C</sub> =125°C	I(AV)	8				A
Peak Forward Surge Current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	IFSM	100				A
Maximum Forward Voltage IF=8A @T <sub>J</sub> =25°C @T <sub>J</sub> =150°C	V <sub>F</sub>	1.3 0.8				V
Maximum DC Reverse Current at Peak Reverse Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =100°C	I <sub>R</sub>	10 500				uA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	45				pF
Maximum Reverse Recovery Time (Note 2)	T <sub>RR</sub>	25				ns
Typical Thermal Resistance (Note 3)	R <sub>θJC</sub>	3.0				°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150				°C

NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2.Reverse Recovery Test Conditions:IF=0.5A,IR=1.0A ,IRR 0.25A.  
3.Thermal Resistance Junction to Case.

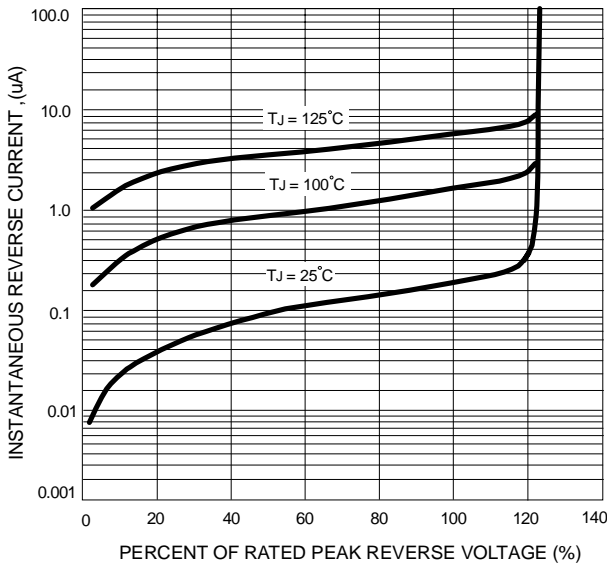
**FIG.1 - FORWARD CURRENT DERATING CURVE**



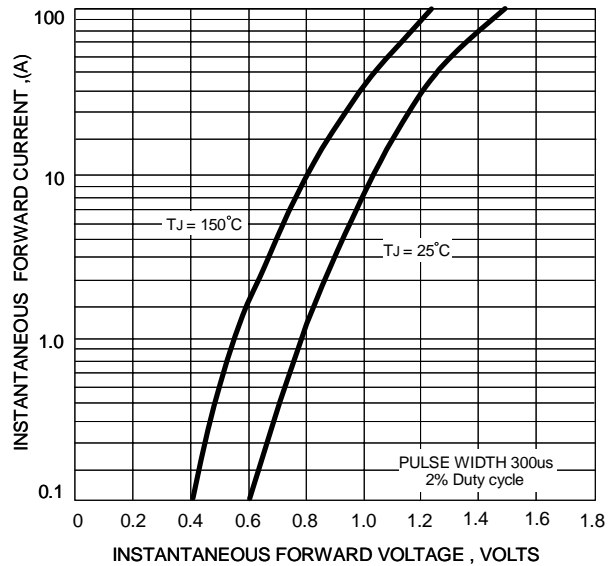
**FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 - TYPICAL REVERSE CHARACTERISTICS**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL JUNCTION CAPACITANCE**

